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Studies on the Diterpenes from *Taxus mairei*. I. Structures of taxamairins A, B and C

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Three new diterpenes, taxamairin A (**1**), taxamairin B (**2**), and taxamairin C (**3**) were isolated from the bark of *Taxus mairei* (Lemee et levl.) S. Y. Hu collected in Fujian Province, China. Compounds **1** and **2** are tricyclic diterpenes containing a tropone ring system, while compound **3** is a tetracyclic diterpene bearing a hemiketal moiety. Their structures were elucidated on the basis of high resolution ^{1}H NMR, ^{13}C NMR, NOE and COSY. The structure of **1** had also been confirmed by X-ray diffraction.

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2′,5′-Dihydroxyflavone and its 5′-Acetate——Novel Compounds from the Farinose Exudate of *Primula*

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In botany textbooks the farinose coating on leaves and inflorescences of many *Primula* species is still often said to "consist of flavone". We have shown ealier that it is in fact formed by varying amounts of unsubstituted flavone (at least 50%), 5-and 2′-hydroxyflavones, accompanied in many species by 5,8- and 5,2′-dihydroxyflavones. In the present paper two new flavones isolated from the farinose exudate of *Primula japonica* and *P. pulverulenta* are described. Their strucures were elucidated to be 2′,5′-dihydroxyflavone and 2′-hydroxy-5′-acetoxyflavone by spectroscopic method and confirmed by synthesis.

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8,2′-Dihydroxyflavone from *Primula pulverulenta*

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The farinose excretion found on aerial parts of many *Primula* species was known previously to consist mostly of unsubstituted flavone, accompanied by 5-hydroxyflavone, 2′-hydroxyflavone, 5,8-dihydroxyflavone, and 5,2′-dihydroxyflavone. In the present study, a novel flavone from the farinose exudate of *Primula pulverulenta* was isolated and its structure was identified as 8,2′-dihydroxyflavone. This is the first naturally occurring flavone, in which ring A is oxygenated only at C-8 The structure was deduced from spectral comparisons with the structurally related flavones: 5′,2′-, 3′,2′-, and 2′,3′-dihydroxyflavone and confirmed by total synthesis. The spectral properties of other flavones oxygenation with a simple pattern are discussed.